

## NEW SPECIES OF NOCTUIDÆ FOR 1907.

No. 1.

BY JOHN B. SMITH, SC. D.

***Acronycta elisabeta*** n. sp.

Ground color a very uniform ash-gray, without conspicuous powderings. Front of head with a smoky tinge and the thoracic disc with a faint luteous shading. Primaries with all the maculation very neatly written, not diffuse. The black basal streak is very well defined, sharply marked to the t. a. line, the inner part of which it joins. Basal line geminate, obscurely marked and lost before the basal streak. T. a. line geminate, outwardly oblique from costa, the outer portion lost below costal inception, the inner black, broken, clearly defined at and each side of its junction with the basal streak, less evident beyond that to the inner margin, interrupted by an inward tooth on the submedian vein. T. p. line narrow, black, lunulate, preceded by a narrow white line, widely outcurved over the cell and well drawn in below, crossed in the submedian interspace by a very distinct sharply defined black streak. A diffusely lunulate, interrupted whitish s. t. line. A dusky terminal line with larger interspaceal dots, beyond which is a dusky interline in the fringes. An obscure luteo-olivaceous median shade extends obliquely from the middle of the costa to the lower part of the reniform and is then lost. Orbicular oval, incomplete, coneolorous; reniform kidney-shaped, inner side very convex, moderate in size, somewhat darkened inferiorly. Secondaries of male uniformly smoky fuscous. Beneath: primaries blackish, paler toward base, with an angulated exterior line. Secondaries whitish, powdery, more so along costa, with an irregular extra-median blackish line and a large ovate discal spot.

Expands 1.32 inches = 33 mm.

*Hab.*—North Elizabeth, New Jersey, in August.

One good male from Mr. H. H. Brehme taken on a maple tree. The species suggests *radcliffei* at first sight; but is not as bright a gray and not nearly so well marked. It has rather a more uniformly dull gray than any other of our species, and the dusky secondaries of the male are characteristic and unlike any other of our forms.

Specimens are also in the collections of Messrs. Buchholz of Elizabeth, and Keller of Newark.

***Semiophora grisatra*** n. sp.

Head and thorax bluish-gray, palpi dark brown except at tip. Primaries blue-gray over a smoky base. Basal line distinct, single, black, broadest on costa, narrowing to the submedian vein, where it ends. T. a. line marked by an oblique black costal streak which touches the middle of the orbicular, by a blackish spot in cell before the orbicular, and by a vague line of black scales following a slightly paler shade from median vein to inner margin. T. p. line marked by a

triangular black spot on costa over reniform, then by a very even paler gray line which runs parallel to outer margin. S. t. line irregular, marked by a preceding smoky shading which is sharply defined against the paler terminal space. Claviform indicated by blackish scales. The cell around the ordinary spots is somewhat smoky, and as the spots themselves are somewhat paler than the ground, they stand out sharply without other defining lines. Orbicular oval, oblique, of good size. Reniform moderate in size, oblique, broadly kidney shaped. Secondaries blackish, with pale somewhat rosy fringes. Beneath: primaries blackish, with a lilac-gray washing and a darker extra-median line; secondaries more gray, more powdery, the lilac tinting more obvious, with a narrow extra-median line and small discal spot. The entire body beneath is of the same lilac-gray tinge.

Expands 1.55 inches = 39 mm.

*Hab.*—Lakehurst, N. J., September 27th.

One female in good condition. This has the wing form of *elimata*, but is much more evenly gray than any example of that species that I have ever seen, and has almost black secondaries, which never occur in the older species. There are other differences in details of maculation, such as the absence of basal black streak, which may be better pointed out when additional material is at had. The specimen was taken at sugar by Mr. J. A. Grossbeck.

### ***Semiophora atoma* n. sp.**

Ground color of the usual light red brown, more or less washed with gray, so that in some cases the general impression is gray rather than brown. Head and thorax concolorous, save that the front may be gray in a brown specimen, and the sides of the palpi are deep blackish-brown. Primaries more or less powdered with black atoms, some specimens very evenly irrorate, with all the usual markings either obsolete or very faintly defined. In the best marked example there is a broken black basal line, marked by scattered scales. T. a. line marked by an oblique dusky costal streak in all specimens, below that lost or traceable obliquely to near the middle of inner margin. T. p. line usually marked on costa, below that lost or obscurely marked by blackish scales, indicating a small even outcurve over cell and as moderate an incurve below it. S. t. line very faintly indicated by a slightly darker preceding shade. Ordinary spots altogether lost or very vaguely defined. Orbicular large, round or nearly so; reniform large, broadly kidney shaped. The spots are either concolorous and have a few black scales indicating outlines, or they are a trifle paler and have no defining scales. Secondaries smoky, with an obscure discal lunule, fringes rosy. Beneath carneau, powdery, primaries with disc smoky and with a faint extra median line; secondaries paler, more brightly rosy, with a small discal spot and a better marked discal line.

Expands 1.17-1.35 inches = 29-34 mm.

*Hab.*—Lakehurst, N. J., September 27th.

One male and nine females, mostly in fair condition. The male is very much rubbed, but has legs and antennæ intact, so as to warrant the generic reference. The females are mostly flown, but are

otherwise in good condition. This is distinctly the smallest species in this series and characteristic by the almost complete absence of maculation. The pectinations of the male antennæ are as in *elimata*. The specimens were taken at sugar by Mr. J. A. Grossbeck.

**Setagrotis filiis** n. sp.

Ground color bluish-ash-gray. Head more whitish, palpi black at the sides. Collar with a blackish median line, inferiorly a little paler. Thoracic tuftings distinct, patagia with a black line at base of wings. Primaries with the transverse maculation obscure, except for the t. p. line, which is marked by venular pale dots, the tendency being toward a strigate type which is not, however, very conspicuously developed. There is a narrow black basal streak marked by a paler gray shade which extends into an outward angle of the t. a. line nearly to the middle of the wing, and beyond which a narrow obscurely marked claviform extends across the median space. The basal line is marked by geminate oblique streaks on the costa. T. a. line broken, partly lost, with long outward teeth in the interspaces, geminate, with gray included spaces. T. p. line irregularly crenulate and denticulate, incomplete, but marked on the veins by a series of gray dots, which after the abrupt outcurve on the costa, run almost parallel with the outer margin. S. t. line lost, the interspaces toward the margin with diffuse smoky shadings. There is a narrow pale line at the base of the gray fringes. Orbicular very narrow, oblique, gray filled, open toward the costa, narrowly black margined and extending to the inferior angle of the reniform, but not fused with it. Secondaries rather evenly smoky, the discal lunule and median line of under, side showing through. Beneath: gray, powdery, costal region of both wings with a reddish tinge; a common crenulate extra-median line and a smoky discal lunule.

Expands 1.40 inches = 35 mm.

*Hab.*—Pullman, Washington, August 21, 1897.

One male, in good condition, from Prof. C. V. Piper. This species has been in my collection for many years associated with the female of *dernarius*, also now described. I could never decide whether I had one species in which the sexes differed markedly or whether there were two allied species, and therefore waited for additional material. The occurrence of a male *dernarius* has enabled me to decide the question satisfactorily. The antennæ are serrated and bristle tufted, and the species is allied to *vernilis* in type of maculation. As I cannot actually demonstrate any spinulation of the fore-tibia, perhaps a generic reference to *Anomogyna* as defined by Hampson may be better; but as in *dernarius*, which is closely allied, there are none visible in the female, though they are obvious in the somewhat defective male, I prefer to hold the species here for the present, until more material will enable the question to be settled.

**Setagrotis dernarius** n. sp.

Ground color dull smoky brown, tending to more reddish-brown. Head paler brown, with an admixture of white scales and a narrow black median transverse line; palpi blackish at sides. Collar with two darker and two paler brown lines, and whitish at tip. Thoracic disc gray; the patagia mottled with blackish scales. Primaries grayish, powdered along the costal region, this powdering extended also in the basal and s. t. spaces, and somewhat along the inner margin, leaving a darker longitudinal shading through the centre of the wing. The transverse maculation is lost or modified to a strigate type. There is a narrow blackish basal streak extending to an angle of the t. a. line and beyond this an obscure claviform reaches to the middle of the wing. Basal line geminate, marked by oblique costal streaks only. T. a. line geminate, strongly dentate, broken, included space whitish, and this whitish included line is all that remains in the median cell. T. p. line marked by venular black and pale dots, on the whole parallel with the outer margin. Veins black lined, interrupted on the t. p. line, and accompanied by white shades on veins 3 and 4, so as to cut the terminal space to the outer margin. No obvious s. t. line. A series of small blackish terminal lunules. A pale line at the base of the dusky fringes, which, opposite the veins, are narrowly cut with paler brown. The orbicular is narrow, very much elongate, a little oblique, ringed with whitish, centred with brown. It does not quite reach the reniform, which is broadly ovate, dusky, incompletely outlined. Secondaries whitish, with a yellowish tinge, the outer border darker and with darker powderings on the veins; discal lunule blackish. Beneath: gray, powdery; primaries with disc smoky, with a broad outer smoky line and a discal spot; secondaries more whitish below the costal region, with a punctiform outer line and a narrow discal lunule.

Expands 1.23-1.38 inches = 31-34 mm.

*Hab.*—California, W. D. Urban, 1906, 106; Easton, Washington.

One male, the smaller example from California, was sent by Sir George F. Hampson for identification, and is somewhat defective and rubbed; one female, the larger example from Washington was probably from Prof. Piper's lot, although not dated and without his label; but it is an almost perfect specimen, and from it the description was chiefly made. As already noted I had the male *filiis* associated with this female until the specimen from the British Museum furnished an exact mate to it. In this male the antennæ are very strongly serrated and tufted, and the spines on the anterior legs are obvious. This, therefore, belongs to *Lycophotia* as defined by Hampson and to which *Setagrotis* is referred as a synonym. For the present I am not quite ready to agree to this, and therefore hold to my generic reference.

**Setagrotis dualis** n. sp.

Ground color dull powdery luteo-fuscous. Head, except front, whitish; palpi with white intermingling hair. Collar inferiorly white, limited by a median brown line, above which there are blackish scales. Thoracic vestiture defective

in the specimen, but apparently the disc was whitish, powdered centrally. Primaries white, powdered along costa, on the median vein, at the base and, in the s. t. space, over veins 3, 4, 6 and 7. Basal line geminate, blackish, broken, marked on the costa and below the median vein. T. a. line geminate, broken, black, angulated in the interspaces. T. p. line single, feebly crenulated, very narrow, blackish, evenly outcurved over the cell and almost rigidly oblique below the curve. S. t. line marked by the smoky terminal space and the preceding white powdering to vein 3, below which it is whitish, broad, somewhat diffuse to the hind angle. On veins 3 and 4 the whitish powdering indents the terminal space and on veins 6 and 7 there is another outward extension which leaves an inward angular extension of the terminal space. Apex pale. There is a series of distinct black interspaceal terminal lunules. Fringes luteous at base, darker outwardly. As a whole the median space is darker than basal and s. t. spaces, and not quite so dark as the terminal space; the cell, except for the ordinary spots, blackish. Claviform small, incompletely outlined by blackish scales, paler than the ground, the pale shade extending outward through the submedian interspace to the t. p. line. Orbicular small, oblong, oblique, defined by black scales, with a broad white annulus; centre luteous. Reniform of good size, kidney shaped, white ringed within the black border, centered with luteous. Secondaries smoky, paler, more luteous at base, fringes white. Beneath: primaries with disc smoky, the borders white, a series of small, black, terminal dots. Secondaries white, powdery along the costal region, smoky along the outer border, with a small dark discal dot.

Expands 1.40 inches = 35 mm.

*Hab.*—Stockton, Utah.

One female in excellent condition, except for the vestiture of thoracic disc, and probably directly or indirectly from Mr. Tom Spalding. At first sight this resembles an *Euxoa* of the *4-dentata* series; but although no male is at hand I think the present references will hold.

### ***Euxoa moxa* n. sp.**

Head, thorax and primaries a rather dull creamy gray. Head with a slightly rusty tinge, which extends to a greater or less degree on to the collar. Primaries with a pale, slightly sinuate s. t. line through a smoky outer shade, and a pale ringed reniform of moderate size in which is a blackish inferior diffuse spot. All the other maculation is lost. It is possible to make out a round orbicular of moderate size by a few black scales and a vague paler ring; and so the course of the median lines is indicated, if one knows exactly what to look for. Fringes rusty, with a yellow interline. Secondaries smoky yellowish in both sexes, a little paler in the male, fringes pale; a narrow discal lunule. Beneath: powdery gray, primaries with disc smoky, all with a small discal spot; in the female there is a broken exterior line on all wings.

Expands 1.40–1.50 inches = 35–37.5 mm.

*Hab.*—Colorado, Glenwood Springs; Durango, July 8th to 15th. One ♂ and one ♀ in good condition. The species is allied to

*scandens* in simplicity of maculation ; but the median lines are even more completely lost, the s. t. line is less contrasting, the color is darker and the secondaries in both sexes are dusky. The species is also rather more robust in appearance than the other closely related forms.

***Euxoa epictata* n. sp.**

Head, thorax and primaries pale reddish-gray, the latter powdered with darker gray. Head and thorax concolorous. Primaries with the ornamentation just traceable, except for the reniform which is lunate, moderate in size, blackish-gray, ringed with pale, but not sharply defined. Basal line geminate, marked on the costa and median vein by smoky dots. T. a. line geminate, hardly relieved, outwardly oblique, evenly angulated in the interspaces. T. p. line geminate, even, oblique, feebly sinuate. S. t. line of the ground color, irregular, marked by an obscure powdering that darkens the outer portion of the wing. A series of narrow terminal lunules which form an almost continuous line, and a pale line at the base of the fringes. Orbicular round, concolorous or slightly darker, marked by a diffuse slightly paler annulus. Secondaries whitish, with a narrow smoky outer border. Beneath: whitish, primaries powdery, with the discal spot of upper side faintly reproduced; secondaries powdery along the costa.

Expands 1.40-1.48 inches = 35-37 mm.

*Hab.*—Southern Arizona, April 15th to 30th, Poling.

Two ♂ and six ♀, all in fair condition. The species has a resemblance to a faded *Orthosia lutosa*, and was at first placed with the material in that genus. It belongs to the *pitychrous* section and has no close allies.

***Schinia sara* n. sp.**

Ground color reddish-luteous, intermingled or overlaid by rusty or dull brown scales. Head and thorax concolorous. Front scarcely tumid and not noticeably roughened. Primaries: basal space chocolate or rusty-brown, s. t. space scarcely paler, but tending to become interrupted at its middle; median and terminal spaces almost concolorous and more powdery. Median lines pale, even, defined by an edging of somewhat darker scales or the contrasting shades of basal and s. t. spaces. T. a. line with a rather even outcurve, the angle above the middle of the wing. T. p. line distinctly bisinuate. S. t. line a little irregular, pale, chiefly marked by the difference in shade between s. t. and terminal spaces. A dusky undefined reniform. Secondaries yellowish, with rusty brown powdering, hardly more obvious outwardly. Beneath pale, outwardly powdered with reddish or brown scales, less so on secondaries.

Expands 1.00-1.12 inches = 25-28 mm.

*Hab.*—Wilgus, Cochise Co., Arizona.

Two females, in fair condition. This is an ally of *oleagina* Streck., but differs altogether in the course of the lines and in the contrasts between the spaces. The anterior tibia has a long curved inner and



a shorter outer claw at tip, and above these the usual smaller spines. In the U. S. N. M. are specimens from the Organ Mountains, New Mexico, viii, 30, and ix, 4, elevation 5,300 feet.

**Schinia buta** n. sp.

Ground color pale creamy, mingled and overlaid by somewhat glossy reddish-gray scales, which gives the entire insect a soft reddish-gray appearance. Head and thorax concolorous, front tumid. Primaries with median space paler than basal and terminal spaces and more powdery, well defined by the broad, whitish, even median lines. T. a. line inwardly bordered by darker scales, moderately outcurved, the angle of the curve on the median vein. T. p. line outwardly bordered by dusky scales, very evenly and slightly sinuate. There is no s. t. line. The reniform is oblong, slightly darker than the ground, not defined, and from it a very faint median shade line extends to the middle of the inner margin. Secondaries of much the same general tint as primaries, more thinly scaled, a little paler at base. Beneath: uniform powdery reddish-luteous, secondaries with a slightly darker shade band outwardly.

Expands 1.15 inches = 29 mm.

*Hab.*—Los Angeles County, California.

One good male. It differs from all its immediate allies in the entire absence of the s. t. line and in the general agreement of tint between the two pairs of wings. The tibial armature is characteristic of the genus: one long outer claw with a series of smaller spines above, a shorter inner claw and two shorter claw-like spines above.

**Schinia ernesta** n. sp.

Ground color pale creamy yellowish, with an overlay or intermingling of reddish scales. Head and thorax concolorous. Front slightly tumid, a little roughened. Primaries somewhat darker beyond the t. p. line, all the maculation very obscure. T. a. line slightly darker than the ground, preceded by a slightly paler shade outwardly bent from costa, with the angle in the middle of the cell, evenly oblique below. T. p. line a little paler than the ground, preceded by a narrower darker line and outwardly defined by the darker s. t. space, very slightly sinuate. S. t. line a little paler than the ground, not sharply defined, almost parallel with the outer margin. A vague slightly darker reniform. Secondaries glossy yellowish, scarcely darker outwardly. Beneath: primaries yellowish at base, pinkish-red beyond the middle; secondaries yellowish.

Expands 1.12 inches = 28 mm.

*Hab.*—Garfield Co., Colorado, 5000 feet.

One good male from Mr. David Bruce. It bears a superficial resemblance to *buta* in color, and a closer one to *sara* in maculation, but is distinct from the former by the presence of the s. t. line and from the later in the color and course of the median lines. The anterior tibiae are wanting, and the armature is assumed to be similar to that of *buta*.

**Tenioecampa saleppa** n. sp.

Ground color red-brown. Head and collar paler, more yellowish or rusty; dorsum uniform dark red-brown. Primaries varying from an even dark red-brown to a mottled powdery dark brown over a yellowish-brown base. Median lines usually obscured and broken by the mottlings, but in a uniformly colored example all the lines are completely defined. Basal line brown, obscurely geminate, marked only in costal region. T. a. line single, rusty-brown, nearly even and only a little outwardly oblique. T. p. line single, a little crenulated, with an even outcurve over the cell and a deep incurve below, so that the space between the median lines on inner margin is very narrow. S. t. line pale, very nearly parallel with outer margin, usually indicated by the difference between the paler terminal and darker s. t. space; but when there is no such difference then by an undefined line of the palest ground. A series of blackish venular dots before the margin. A very narrow crenulate blackish marginal line, followed by a pale line at base of fringes. Margin a little scalloped. Claviform wanting. Orbicular of good size, oblique, a little or no paler than ground color, defined by blackish scales, tending to become open to costa and to unite with the reniform inferiorly, the union becoming complete in some cases. Reniform moderate in size, kidney-shaped, outlined by a narrow pale ring, uniformly darker than the ground, but not contrasting. Secondaries smoky, with coppery-brown powderings, with a blackish discal spot and a blackish terminal line. Beneath: rusty-yellowish, with coppery-brown powderings, all wings with a large blackish discal spot, a crenulated terminal line and an obscure extra-median line, which is best marked on the costa.

Expands 1.40-1.56 inches = 35-39 mm.

*Hab.*—British Columbia; Wellington, April 12th, 14th; J. Bay, Victoria, August 17th.

Four males and one female in fair or good condition, the Wellington examples from W. J. Bryant. The species is allied to *prases*, and while no two examples of either species are alike, there is no chance of confounding the two.

The male antennæ are serrate and bristle tufted, and the species would be referred by Hampson to his *Perigrapha*, Section III, as an ally of *prases* and *transparens*, with which it also agrees in wing form and thoracic tufting.

**Orthosia straminea** n. sp.

Head, thorax and primaries dull straw-yellow; abdomen and secondaries uniform smoky. Maculation of primaries a little more brownish, the lines not relieved, incomplete, the space beyond the t. p. line smoky, relieving the pale somewhat irregular s. t. line. Basal line single, obscurely indicated. T. a. line very faint, single, with outward angulations in the interspaces. T. p. line slender, broken, irregular, followed by small venular black dotlets. The veins are somewhat darker through the terminal space, and there is a series of interspaceal terminal lunules. Orbicular of good size, nearly round, concolorous, ringed with brownish. Reniform large, centrally a little constricted, brownish ringed, black-



ish filled inferiorly, else concolorous. Beneath dull pale yellowish, a little smoky outwardly, all wings with a blackish discal spot.

Expands 1.12 inches = 28 mm.

*Hab.*—Glenwood Springs, Colorado, October 16th to 23d.

One good male, from Dr. Barnes. This is an ally of *ferruginoides*, than which it is smaller, much more obscurely marked, with dusky secondaries and a dusky outer border to the primaries. The antennæ have the joints marked and fasciculate.

### ***Orthosia acta* n. sp.**

The ground color varies from very pale reddish-gray, with a yellow tinge to almost rusty red-brown, the markings always a deeper shade of the ground color so that while they are distinct they are never contrasting. Head and thorax concolorous. Basal half line distinct, single, even. T. a. line geminate, inner portion faint, outer distinct, included space a little paler than the ground; in course oblique, with two well-marked inward angulations so that it looks like a widened W. T. p. line geminate, outer portion obscure, included space a little paler, inner line fairly defined, lunulate, as a whole with an even, moderate outcurve over the cell and a very feebly marked incurve below. The median shade band is very distinct, narrow, a little diffuse, a little oblique from costa between the ordinary spots to the lower angle of the reniform, then a little inwardly oblique to the inner margin nearly at its middle. S. t. line pale, preceded by a neat well-defined rusty brown shading, a little irregular, as a whole parallel with the outer margin. A series of small terminal lunules. Claviform moderate in size, concolorous, outline not well defined. Orbicular outlined in red-brown, concolorous, large, nearly round. Reniform large, upright, only a little constricted, with narrow red-brown outline, concolorous, except for a leaden-gray inferior spot. Secondaries very pale yellowish, immaculate. Beneath: yellowish, with a reddish tinge, powdery, secondaries paler, both wings with an extra-median dusky line and a discal spot.

Expands 1.28-1.36 inches = 32-34 mm.

*Hab.*—Corvallis, Oregon, September 27th and November 3rd; Pullman, Washington, October 20th; Corfield, Vancouver, September 9th; Livingston, Vancouver, September 5th.

Five ♂ and one ♀, all in fair or good condition. The wing form is like that of *verberata*, a little more elongate and pointed than *bicolorago*, and in the uniformly yellowish secondaries this species resembles *decipiens*, with which, indeed, it has been confused. The ♂ antennæ have the joints marked and fasciculate, the thoracic vestiture is hairy, forming no distinct tufts. From *decipiens*, which is a large eastern species resembling a washed out *ferruginoides*, this species differs by the neatly marked ornamentation and smaller size.

**Orthosia antapica** n. sp.

Ground color a rusty reddish-gray, more or less powdered with smoky or blackish scales, so that some examples seem to have been washed with sooty particles. Head and thorax concolorous. Primaries with all the markings defined, usually clear in the less powdery, obscure in the darker examples, the median shade line always the most obvious of the transverse markings, lower part of reniform conspicuously darker, a dark brown or blackish costal patch preceding the s. t. line always the most conspicuous portion of the wing. Basal half line geminate, broken, a little irregular. T. a. line geminate, the two portions almost equally distinct, included space concolorous, outwardly oblique, outcurved in the interspaces, a little drawn in on the veins. T. p. line geminate, the lines almost even or the inner a little lunulate, in course a little irregular, not much outcurved over the cell and not much drawn in below it. Median shade narrow, with diffuse margins, but well defined, outwardly oblique from costa between ordinary spots to inferior half of reniform, there angled and inwardly oblique to the middle of the inner margin. S. t. line preceded on costa by a conspicuous dark blotch, thence punctiform, consisting of a series of interspaceal blackish dots, followed by a very obscure pale line. A series of interspaceal dark lunules a little before the margin of the wing. The s. t. space is sometimes a little darker than the rest of the wing. Claviform barely traceable by brown outlining scales. Orbicular oval, oblique, of good size, incompletely and narrowly outlined in brown. Reniform large, oblique, a little constricted centrally, narrowly defined by brown scales and a slightly paler ring. Secondaries smoky, with a more or less reddish tinge, a smoky discal lunule; a narrow terminal smoky line, preceded by a paler margin. Beneath: reddish to smoky, powdery, with a large smoky discal spot on all wings, and a more or less obvious extra-median line.

Expands 1.36-1.46 inches = 34-36 mm.

*Hab.*—Corvallis, Oregon, October 6th, 8th and November 3rd, 11th; Corfield, Vancouver.

Three ♂ and three ♀. The wing form is like that of *purpurea* Grt., which this species resembles in some points. The type of maculation is more like that of *verberata* and the secondaries are similar; but the punctiform s. t. line will serve to distinguish this form. The ♂ antennæ are ciliate rather than fasciculate, the thoracic vestiture is hairy, and there is a neat little anterior crest.

**Orthosia fornica** n. sp.

Ground color rather pale, even, red-brown; head and thorax concolorous; primaries with median lines scarcely relieved, the leaden gray spot in reniform and black costal mark at inception of the punctiform s. t. line being the prominent features. T. a. line geminate, with rather even outward angulations in the interspaces. T. p. line mostly marked by the difference in tint between median and s. t. spaces, with little outward rays on the veins, only a little curved over cell. Median shade rather well defined, brown, outwardly bent from costa to reniform inferiorly, then inwardly oblique to margin. S. t. line marked by a series of black interspaceal dots. An obscure brown terminal line, followed by a pale line at base of fringes. Claviform indicated by a partial outline. Orbicular large.

concolorous, incompletely brown ringed. Reniform large, slightly constricted, inferiorly dusky. Secondaries very pale, smoky yellow, with a rosy flush; a vague s. t. darker shade and smoky discal spot. Beneath: rosy reddish, primaries paler, all wings with discal spot.

Expands 1.12 inches = 28 mm.

*Hab.*—Southern California.

One male in good condition, save that it lacks antennæ and the tips of primaries are a little broken. I have no data as to the source of the specimen. It resembles *antapica* in a general way, but is smaller, more even in tint, without the contrasts that distinguish the larger species.

***Orthosia aggressa* n. sp.**

Ground color a very pale luteous gray. Head and thorax concolorous. Primaries with basal and outer area washed with bluish-gray, leaving the median area more dull in appearance. Basal line indicated on the costal region. T. a. line geminate, smoky, even, with an even oblique outcurve to inner margin. T. p. line geminate, blackish, even, only a little outcurved over the cell. Median shade smoky, distinct, outwardly oblique from costa to reniform inferiorly, then parallel with t. p. line to inner margin. A smoky costal blotch between s. t. and t. p. lines. S. t. line punctiform, consisting of smoky, somewhat lunate interspaceal spots outwardly marked by paler scales. Fringes dusky, with a series of vague terminal lunules preceding them. Orbicular large, irregular, concolorous, scarcely defined. Reniform large, upright, a little constricted, inferiorly dusky, else not well defined. Secondaries paler, more transparent yellowish, with a smoky suffusion in the female. Beneath: dirty white, more or less powdery, usually with discal spots on all wings, and on secondaries sometimes an extra-median dusky line.

Expands 1.12-1.25 inches = 28-31 mm.

*Hab.*—Colorado, Denver, July 8th; Gunnison, July 9th; Chimney Gulch, July 16th; Clear Creek Canon, August 24th; Cartwright, Manitoba.

Five ♂ and one ♀, mostly poor. Quite readily distinguished by its very pale gray color and very even median lines. The ♂ antennæ are ciliate only.

***Homoglaea dives* n. sp.**

Head and thorax deep blackish-brown, the thoracic vestiture becoming black over the base of the abdomen. Primaries deep red-brown, paler along the inner margin and becoming darker until at the costa the color is almost purplish-black. The median lines are geminate, deeper velvety brown, not contrasting but readily made out, in course like those of *carbonaria*, of which this is an ally. Median shade rich brown, better marked than median lines, angulated at the inferior angle of the reniform, which may be invaded by the darker shade. S. t. line irregular, pale, preceded by blackish scales, which, on the costa, form a distinct

contrasting spot. Orbicular large, irregular, outlined by black scales. Reniform large, upright, a little constricted, outwardly margined with yellow scales and a line of yellow scales centrally. Secondaries blackish. Beneath: dark smoky, with a purplish wash, paler on secondaries on which is also a discal spot.

Expands 1.65 inches = 41 mm.

*Hab.*—Corvallis, Oregon, March 11th (Cordley); Wellington, British Columbia, April 14th (Bryant).

Two good females, associated with *carbonaria*, but abundantly distinct by the characters just pointed out. *Carbonaria* is locally rather common, and I have had a great many examples under examination, so that I am familiar with its range; but I never had specimens like these taken with that species.

***Aleptina luteomedia* n. sp.**

General ground color ashen-gray, ornamented and washed with luteous and deep brown or black. Head usually, and often the collar also, luteous, with a reddish tinge. Thoracic disc leaden-gray or darker, this shade sometimes involving the collar and in one example the head as well. Primaries ashen-gray, with a luteous shading, which starts from costa at base, curves through the middle of the wing without quite reaching the inner margin and terminates on the outer margin below the apex. Inferiorly this shading is quite well limited; but superiorly it merges gradually into the gray which extends to costa. The usual median lines are much obscured and barely traceable. At base a deep brown shade limited by a black line, extends obliquely outward to the inner margin, limiting the luteous shade inferiorly, and a brownish or blackish powdering extends along the inner margin to the point where it meets a curved blackish-brown shade which forms an inner shading to a white line which extends from the middle of the outer margin, with an incurve to the inner margin well within the anal angle. This line is a little irregular and has a distinct tooth on vein 1. From the apex a narrow blackish shade band extends obliquely inward to the lower angle of the cell, forming here an inner margin to the luteous shading. On the costa there is a dusky shade before and after the orbicular. The orbicular is small, round, concolorous, clearly defined by a narrow black ring and with a black central dot. The reniform is vaguely indicated at the end of the cell. The clavi-form has in one example, an outline of rusty brown scales. There is a series of leaden-gray or black terminal dots or spots, beyond which the fringes are cut with the same color. Secondaries white, with a series of black terminal spots, a variably evident broken extra-median shade line, and a small black discal spot. Beneath: primaries powdery, smoky along the costal region, very pale yellowish toward the margins, orbicular faintly reproduced, reniform marked by blackish scales and more evident than above. Secondaries white, with a distinct lunate black discal mark, a series of black terminal lunules, and a more or less evident extra-median line marked on the veins only.

Expands .85-1.10 inches = 21-27 mm.

*Hab.*—Southern Arizona, Poling, August 1st to 15th; Yavapai County, Arizona, Hutson, May 22nd; Baboquivaria Mts., Arizona, Snow.

Four males and two females, in fair to good condition, and all the males decidedly smaller than either of the females. Though the specimens are all in good condition so far as primaries are concerned, three of them have been papered, and the others have the abdomen greasy or rubbed so that the character of the tufting is obscured. It seems probable that the patagia are a little uplifted, that there is a somewhat prominent posterior tuft on the thorax, and that there is a series of little abdominal tufts, at any rate in the male. The frontal process is long, longer in the male, flattened above, the tip a little emarginate so as to leave two prominent points, the process becoming transversely compressed inferiorly, so that at tip, when seen from the front, it looks almost T-shaped, with the ends prominently produced.

**Oxycnemis baboquavaria** n. sp.

Ground color light ashen-gray, dusted and shaded with smoky brown, the maculation black, female darker than the male. Head and thorax uniformly mottled with gray and brown, the posterior thoracic tuft metallic-bronze tipped, conspicuous. Primaries with the usual markings evident, neatly written. Basal line single, black, distinct, extending to the middle of the wing. T. a. line upright or nearly so, rigid, or with only a little outward angulation at the middle, black, preceded by whitish scales. T. p. line single, black, outwardly shaded with white scales, inwardly oblique from costa not far from apex to vein 3, thence with a decided incurve to vein 1. S. t. line obscurely indicated by a slight difference in shade between the s. t. and terminal spaces. A continuous narrow black terminal line. Fringes of the ground color, obscurely cut with smoky brown. Claviform large, loop-like, extending half-way across the cell, narrowly outlined in black, with a whitish line within; else concolorous. Orbicular round or broadly oval, of good size, black and white ringed, usually paler than ground. Reniform large, broadly lunate, oblique, narrowly outlined in black within which is a whitish ring in the female and a whitish filling in the male. A whitish shading in the cell from t. a. line extends outward to the costa at t. p. line; a somewhat darker shading fills the middle of the median space; a decidedly darker shade extends obliquely inward from within apex to the middle of the wing, best marked below the apical region. Secondaries pale smoky in the male, darker and more uniform in the female, fringes white; in the ♂ an obscure extra-median line. Beneath: primaries smoky, secondaries whitish, powdery, with an obscure outer line and discal lunule.

Expands .92 (♂)–1.05 (♀) inch = 23–26 mm.

*Hab.*—Baboquavaria Mts., Pima County, Arizona, July 15th to 30th, 1903, O. C. Poling.

Two males and two females, in good condition. The males, besides being the smaller, are also lighter in color and more contrastingly marked, the basal space distinctly white powdered. The

markings are very uniform, however, and there is not enough range of variation to cause doubt. The species is allied to *sectilis* in general type of maculation, but the head and thorax are not brown, and the maculation is black instead of brown. From *advena* it is distinct by the obvious t. p. and s. t. line, the reverse being the case in Mr. Grote's species. We have, evidently, a little series of closely allied and very local forms in this genus.

**Oxyenemis gustis** n. sp.

Bright bluish-ash-gray; head and thorax darker, almost blackish, with white intermingled hair and scales. Thoracic tuft distinct, with metallic lustre. Primaries with the cell whitish filled, basal space strongly white powdered, a diffuse whitish shading beyond the incurve of the t. p. line and a well-defined oblique smoky shading from costa within apex to the base of reniform. Basal line obvious, upright, blackish, a little diffuse. T. a. line a little oblique, with a slight outward tooth at middle, blackish, diffuse. T. p. line narrower, not sharply defined, blackish, squarely exerted over cell, with a decided incurve in the submedian interspace. S. t. line vaguely indicated by a whitish shading and a somewhat darker powdering in the terminal space. A distinct, black continuous terminal line at the base of the concolorous fringes which are narrowly cut with smoky brown. Claviform obscurely outlined by blackish scales, large, broad, scarcely relieved from the surrounding space. Orbicular round, of moderate size, obscurely outlined by gray scales. Reniform broadly lunate, gray, not well defined, outwardly obscured by the oblique subapical shading. Secondaries white, costal region and a narrow outer border smoky and powdered; fringes white. Beneath: primaries smoky, costa whitish powdered, a distinct brown terminal line, the fringes narrowly cut with white. Secondaries white, with a smoky powdering in the costal region and a narrow outer line.

Expands .85 inches = 21 mm.

*Hab.*—Southern Arizona, August 1st to 15th, Poling; one good male.

This is allied to *baboquavaria* in type of markings, but is smaller, paler gray, with diffuse markings and darker head and thorax. Judging from the allied species the female will be larger and darker and may be more definitely marked. I do not remember having seen this form in other collections.

**Oxyenemis yuma** n. sp.

Ground color gray over a luteous base. Head a little less powdery than the thoracic disc, but as a whole both are powdered with black scales, which are more massed posteriorly on the tuft, which is less prominent than in the type form and not metallic. Abdomen yellowish or whitish like the secondaries. Primaries with all the transverse maculation obscure, strigate with white and black. A dusky shading extends from apex to the inner margin within the anal angle and this in part relieves the very irregular and fragmentary, diffuse pale s. t. line. The claviform extends from base to beyond the middle of the wing, is narrow,



edged with a fine black line, and this in turn edged by a more or less obvious layer of white scales. The ordinary spots are fused, the long narrow orbicular joining the reniform at its middle. A narrow black line inwardly edged with white scales defines the combined stigma. There is a distinct, rather broad, continuous black terminal line, beyond which the fringes are gray and white lined. There is a whitish shade preceding the oblique dark shade on costa just before the apex and sagittate black spots precede the s. t. line in part of its course. Secondaries whitish in the male, smoky in the female, a little darker outwardly in both cases and with a darker terminal line basing the white fringes. Beneath: powdery; primaries with the disc smoky and a white line at the base of the fringes which are also cut with white; secondaries with an obscure discal lunule, a punctiform extra-median line and a smoky terminal line.

Expands .72-.84 inches = 18-21 mm.

*Hab.*—Yuma County, Arizona, in April; Walters Station, California, in April (Hutson); Gila County, Arizona, in June (Poling); Kerrville, Texas, May 24th to 30th (Dr. Barnes).

Five male and thirteen female specimens, mostly in good condition and mostly of the desert material sent in by Mr. Hutson. There is a little variation in the distinctness of maculation, and the males are uniformly smaller and paler than the females. In the strigate type of maculation this species resembles *fusimacula*, but is smaller and with more obtuse and broader primaries. From the more typical species it is separated by the character of the posterior thoracic tuft, which is not metallic and does not consist of broadly flattened scales. It is really more like a very small *Oncocnemis* of the *chandleri* group, and not unlike *gracillima* Grt.

### ***Oxyenemis adustus* n. sp.**

Ground color dull ashen-gray over luteous. Head chocolate-brown in front, vertex and thorax powdered with black scales, posterior tuft a little darker. Primaries obscurely marked. Basal and t. a. lines lost. There is a long concolorous claviform, very faintly indicated by scattered white scales, which extends nearly to the t. p. line. The t. p. line is smoky brown, single, followed by a narrow paler shade, acutely angled over the cell, thence evenly oblique to the inner margin a little beyond the middle, both brown and pale shadings better marked toward the margin. S. t. line very irregular, broken, whitish, preceded by darker shadings and interspaceal black lines; forming more conspicuous blotches opposite the cell and in the submedian interspaces. There is a whitish streaking from the inner costal inception of the s. t. line and the reniform. The ordinary spots are concolorous, narrowly and obscurely white ringed, confluent, the elongate orbicular entering the centre of the reniform. Terminal line black, distinct, continuous, the fringes gray at base and with a yellowish interline. Secondaries smoky whitish, darker at the outer margin, fringes white. Beneath smoky, primaries more luteous, with broad fringes alternately lined with white and gray; secondaries whitish.

Expands .68 inches = 17 mm.

*Hab.*—San Antonio, Texas.

One rather defective male which would not have been described at this time but for its obvious relationship to *O. yuma*. In thoracic vestiture it is like that species, and so it is in the general type of maculation; but it is much less irrorate and strigate in appearance, and such markings as are present are not nearly so well defined.

***Stibadium hutsoni* n. sp.**

Color a bright olivaceous-gray. Head whitish; frontal process cylindrical, depressed at tip so as to leave a sharp rim, from the central lower margin of which a transversely flattened wedge-like process extends upward and outward a little beyond the rim. Thorax pale olivaceous, vestiture composed of flattened hair; tuftings not marked in the specimens. Primaries olivaceous, with a broad paler median band that does not quite reach the costa; a narrower pale shade band from outer third of inner margin to apex, a little waved and not so obvious at apex; an obscure paler shading from hind angle along outer margin to the apex; in the male traceable to a union with the extra-median pale shade band. Fringes olivaceous. Secondaries uniformly smoky brown. Beneath: primaries almost uniformly smoky; secondaries whitish, with an ochreous tinge.

Expands .80-.85 inches = 20-22 mm.

*Hab.*—Yuma County, Arizona, March 23rd; Walters Station, California, April 20th.

One male and one female in fair condition, both taken by Mr. Hutson in the same kind of desert area, though in different States. The rather even olive-green and the obvious, broad, pale median band are characteristic of the species.

***Stibadium fuliginosa* n. sp.**

Ground color dull, smoky luteous, with a tendency to olivaceous. Head tending to paler, more whitish, frontal structure as in *hutsonii*. Thoracic vestiture an intermingling of scales and hair, the tuftings defective in the specimens. Primaries with a narrow pale band extending from the outer third of inner margin diagonally, nearly to the apex. Secondaries smoky, scarcely paler at base. Beneath: uniformly smoky, secondaries scarcely paler than primaries.

Expands .72-.84 inches = 18-22.

*Hab.*—Walters Station, California, April 20th; Phoenix, Arizona, April 1, 1897.

Five males and four females in fair condition as to wings; but the thorax compressed or with defective vestiture in most cases. All except one female were sent in by Mr. Hutson, the latter from the Hulst collection and much paler than any others. Three females and two males agree strictly with the above description. In one female the outer line is broader, a little less rigid, extends to the apex, and there is a pale marginal band extending the entire length

of the outer margin. One male matches this female, except that the pale shades are much less marked, and in two males there is a tendency to the median shade which occurs in *hutsoni*. There is a possibility that this is only an extreme form of *hutsoni*, or that two of the examples referred here are really variations of the other species.

**Perigea morsa** n. sp.

Ground color dull fuscous-brown, without obvious shadings or contrasting maculation. Head and thorax concolorous with primaries, collar with a black subapical line, abdomen only a little lighter. Primaries with all the lines punctiform, basal and median lines geminate, incomplete and variably defined. S. t. line preceded by a black, narrow, defining shade, which may be very distinct and quite sharply marked, or may be just obvious. The cell, except for the ordinary spots is shaded with blackish; but not sharply contrasting. Basal line obvious in all the specimens; inner part tending to become complete. T. a. line a little oblique, irregular in the interspaces, dissimilar in the specimens. T. p. line quite even, in some cases almost parallel with the outer margin, in others a little more outcurved over the cell and a little drawn in below. S. t. line quite irregular, drawn in below apex, above vein 5 and above the anal angle. A series of obscure dusky terminal lunules. Claviform marked only by black scales, of moderate size, obscure. Ordinary spots not outlined and incompletely defined; orbicular nearly round and of moderate size; reniform large, a little drawn together at middle; both spots usually a little lighter than the rest of the wing and not powdered with blackish scales. Secondaries: in the male whitish, with a dusky outer margin; in the female evenly dull, smoky. Beneath: dull brown, powdery, secondaries much paler, both wings with a distinct dark exterior line; secondaries with a discal spot.

Expands 1-1.12 inches = 25-28 mm.

*Hab.*—Brownsville, Texas, in June.

Two males and two females in only moderate condition, from Prof. F. H. Snow. In wing form and, indeed, in general appearance, this resembles *claufacta*; but it is decidedly smaller and there are no abdominal tuftings. In maculation the continuous dusky or blackish s. t. shade is always at least obvious, and the dark shadings of the median cell attract attention.

**Acontia cacola** n. sp.

—Head and disc of thorax chocolate-brown, with a metallic lustre, collar and lateral margins of patagia white. The head tends to a paler tint, and the brown scales may be rubbed so as to make confusion possible in a defective specimen. Abdomen not banded. Primaries with the markings chiefly brown, lustrous; no complete transverse maculation. A black ovate patch fills the inferior half of the basal space. The inception of the t. a. line is indicated by a small brown spot. There is a brown costal spot at the inception of the t. p. line, and this varies in

size from a mere dot to a blotch and may be geminate. The t. p. line is traceable in some examples by dotted marks until it merges into the large brown patch that occupies the third quarter of the inner margin and extends upwards to the middle of the wing. This patch is not of solid color, but rather of wavy bands, and the t. p. line is indicated by black scales. There is another brown blotch at the apex, and in this the s. t. line is marked by intensely black scales. In all the brown patches there are some metallic-blue scales. A complete series of black terminal spots. Orbicular absent. Reniform traceable in all specimens, but varies from a pair of narrow black short lines to a leaden-gray spot, with or without defining black scales at sides. Secondaries dirty white at base, outwardly smoky, fringes whitish. Beneath: primaries yellowish, outwardly smoky and mottled to obscurely reproduce the markings of upper surface; secondaries whitish, with a narrow dusky outer margin and a dusky discal lunule.

Expands .75-.82 inch = 19-21 mm.

*Hab.*—Southern Arizona, August 15th, Poling; New Mexico, Hot Springs, alt. 7000 feet, August, Hulst; New Mexico, No. 800, Cockerell.

Five male specimens, all in fair or good condition. The species is allied to *gonella* and *flavicollis*, but is smaller and differs from both in having the maculation chocolate-brown instead of blackish or leaden gray. The thorax is not so completely brown and the markings of the primaries are much more fragmentary. It differs further in the complete absence of the orbicular.

***Yrias terminalis* n. sp.**

Similar to *volucris* Grote in maculation and general appearance, but much more contrastingly marked. The ground color is distinctly more yellowish and mottled, without the even bluish shading described by Mr. Grote, and the lines stand out in good contrast, although they are not black as in *repentis*. A rusty brown shade line accompanies the t. a. line outwardly, another crosses the wing just beyond the median line, the s. t. line is partly of the same color, and a well-marked rusty shade borders the s. t. line outwardly. The s. t. space tends to break up into a dark costal, a central and an inner marginal dark blotch, the central blotch extending into the terminal space. Secondaries also more yellowish and with more contrasting lines than in *volucris*.

Expands .95-1.05 inches = 24-26 mm.

*Hab.*—Yavapai County, Arizona, May 20th to 30th.

Three males and three females from Mr. Hutson, sent in with a lot of *volucris* and *clientis*. From the lot of 40 *volucris* before me, these six specimens stand out distinctly by their mottled appearance, and there is no intergradation. In fact, there is little variation in this genus, the 60 or more *clientis* being almost alike. In *volucris* and *terminalis* the last segment of the abdomen of the female is rusty brown at the tip, and the lateral incisures of the ventral sclerite

are sharply cut. In the male *volucris* the middle tibiae are outwardly thickened by hairy and scaly vestiture, while in the new species there is little or no surplus vestiture.

***Chytolita fulicalis* n. sp.**

Ground color dull mouse-gray or smoky. Head and thorax concolorous, abdomen hardly lighter. Primaries with the median lines single, only a little darker, slender, continuous. T. a. line a little irregular, as a whole with a very even outcurve. T. p. line also irregular, with a moderate, even outcurve over cell and an almost equal incurve below. S. t. line punctiform, very obscure, the spots interspaceal, parallel with the outer margin. A series of very small, blackish terminal lunules. Reniform black or blackish, moderate in size, sublunate, not definitely outlined. Secondaries hardly paler than the primaries, with a narrow smoky median transverse line. Beneath: primaries smoky, yellowish along costa, with a smoky extra-median line. Secondaries yellowish, powdery, with a dusky extra-median line and a discal spot.

Expands .96 inches = 24 mm.

*Hab.*—Tennessee, August 1st, S. T. Kemp.

A single male in good condition. This is the smallest of our species and the most obscurely marked, differing at once from both the others by the dark smoky ground which has a dash of reddish.